Brief Summary of the Circulatory System Devices Panel Meeting – June 12, 2014

Introduction:

The Circulatory System Devices Panel of the Medical Devices Advisory Committee to the Food and Drug Administration met on June 12, 2014, to discuss, make recommendations, and vote on information related to the premarket approval application for the LUTONIX 035 Drug Coated Balloon PTA Catheter sponsored by Lutonix, Inc. The LUTONIX 035 Drug Coated Balloon PTA Catheter (LUTONIX DCB) is an over-the-wire percutaneous transluminal angioplasty (PTA) catheter with a paclitaxel-based drug coating on the surface of the balloon. The LUTONIX DCB is compatible with a 0.035" guidewire and has balloon sizes ranging from 4 millimeters (mm) to 6 mm in diameter and 40 mm to 100 mm in length. The LUTONIX DCB catheter is available in 75 centimeters (cm), 100 cm and 130 cm working lengths.

The sponsor has proposed the following Indications for Use:

The LUTONIX® 035 Drug Coated Balloon PTA Catheter (LUTONIX DCB) is indicated for improving luminal diameter for the treatment of obstructive de novo or non-stented restenotic lesions (≤ 15 cm in length) in native femoropopliteal arteries having reference vessel diameters of 4 mm to 6 mm.

Panel Deliberations/FDA Questions:

Question 1: Indications for Use

The panel believes that predilatation is necessary prior to use of the LUTONIX DCB in order to reflect use of the device in the clinical study and therefore use of the LUTONIX DCB is an adjunctive procedure to percutaneous transluminal angioplasty. The panel recommended that the indications for use include predilatation.

The majority agreed that the indications reflect the lesion types evaluated in the clinical study (specifically referring to the inclusion of both de novo and non-stented restenotic lesions).

While the panel had significant concerns regarding gender issues, the panel accepted poolability of the data overall and agreed that the indications should not exclude women.

Question 2: Labeling

The panel expressed no concerns with the proposed contraindications, warnings, and precautions in the labeling. However, suggestions were made regarding potential additional

warnings that should be included (e.g., the use of multiple balloons, the lack of proven effectiveness in females, lack of long-term data).

Question 3: Safety

The panel believes that the intent to treat (ITT) analysis is more appropriate than the perprotocol analysis (PP). The PP analysis is less useful because it inappropriately excludes a number of patients for geographic miss.

Although the panel found the overall evaluation of safety acceptable, the data available for evaluation of rare drug effects of the combination product are limited. The panel noted that there is some additional safety information available using the drug for treatment of breast cancer and other uses.

Question 4: Effectiveness

The panel believes that the ITT analysis is more appropriate than the PP analysis. The PP analysis is less useful because it inappropriately excludes a number of patients for geographic miss.

The ITT analysis showed effectiveness of the LUTONIX DCB with statistical significance. However, the results show only a modest difference in effect size. Although the study showed only a modest difference, the panel believes that the effect is clinically significant.

Target lesion revascularization (TLR) is a secondary endpoint that trended in favor of the LUTONIX DCB, and although difference did not meet statistical significance, the panel believes the trend is clinically significant.

Question 5: Geography and Gender Sub-group Analyses

The panel expressed concerns regarding the disparate findings from the geography (US vs. outside the US) and gender analyses, but accepted poolability overall due to the limited sample sizes of these subgroups. The panel recommended that the gender issues be further evaluated after approval, and that the labeling include the results of these analyses and possibly a warning to women with severe disease.

Question 6: Long-Term Follow-Up

The panel consensus was that there are not adequate long-term data available at this time to draw conclusions regarding long-term performance.

Question 7: Evaluation of the Totality of the Data from the LUTONIX DCB trials (Overall Benefit/Risk Assessment)

Based on the totality of the data, the panel agreed that the device is safe and modestly effective, and found the LUTONIX DCB an acceptable alternative treatment as adjunctive therapy to PTA.

Question 8: Post-Approval Study

The panel recommended a post-approval study that provides longer-term data on more patients and further evaluates US women. The panel recommended follow-up for a minimum of 2 years up to possibly 3-5 years to be consistent with other studies of similar products.

Vote:

The panel voted on the safety, effectiveness, and risk benefit ratio of The LUTONIX® 035 Drug Coated Balloon PTA Catheter (LUTONIX DCB).

On Question 1, the panel voted <u>9-0</u> that there is reasonable assurance that the LUTONIX DCB is safe for use in patients who meet the criteria specified in the proposed indication.

On Question 2, the panel voted <u>9-0</u> that there is reasonable assurance that the LUTONIX DCB is effective for use in patients who meet the criteria specified in the proposed indication.

On Question 3, the panel voted <u>9-0</u> that the benefits of the LUTONIX DCB outweigh the risks for use in patients who meet the criteria specified in the proposed indication.

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